



# Open Data Strategy

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## 1. Thames Water Open Data Strategy - Foreword

Open data means making information freely available for everyone to access, use, and share. Data, along with the people, processes, and technology that support it, are important assets, much like water pipes, pumps, and treatment works. Data is essential for developing insights, making informed decisions, and improving services. The use of open data could transform water and wastewater service delivery by increasing transparency, enhancing efficiency, improving customer experience, and stimulating innovation. By making our data open, we aim to foster collaboration, stimulate innovation, and enhance services for our customers and communities. Sharing our data openly, in a way which complies with our legal and regulatory obligations, empowers researchers, developers, and innovators to create solutions that benefit everyone. This openness helps us identify inefficiencies, improve operations, and provide better service.

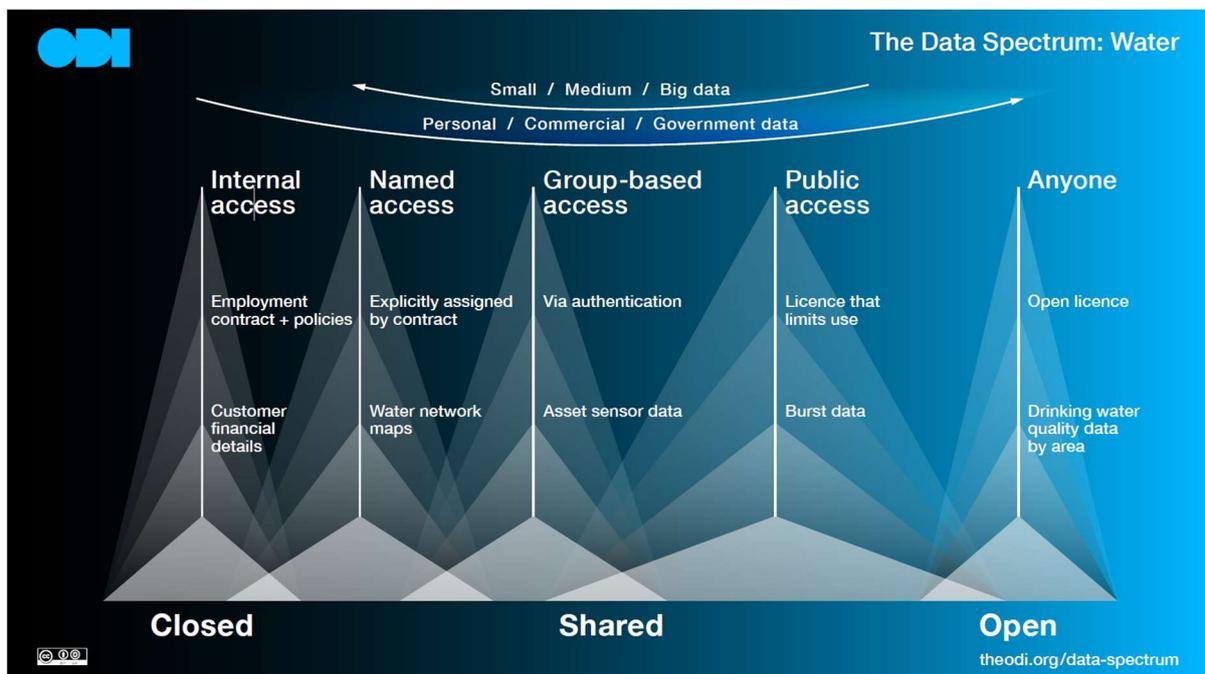
At Thames Water, we aim to become a data-driven and open data water utilities company. Our Open Data Strategy highlights the potential benefits of adopting an open data culture, such as increased trust, transparency, innovation, and service improvements. It outlines our commitments to engaging the data community, enhancing data processes, and treating data as an asset. This strategy underscores the importance of leadership and collaboration within the water industry and beyond. Our Open Data Strategy is about creating a culture of openness and collaboration. We are committed to working with other organisations to share best practices and learn from each other, collectively tackling challenges and driving progress in the sector.

In conclusion, our Open Data Strategy is an indication of our commitment to transparency, innovation, and excellence. We are excited about the possibilities that open data brings and look forward to working with our partners and the wider community to harness its full potential. As a sector we possess a vast amount of data and information related to water and wastewater services. Additionally, we hold data that can offer valuable insights into how the water and wastewater systems affect and interact with communities and the broader environment.

## 2. What is Open Data?

Open Data can mean different things to different people. The data spectrum illustrates the range of data openness, from fully 'open' data that anyone can access, use, and share, to data that remains closed due to commercial, security, or personal reasons. We adhere to the Open Data Institute's (ODI) definition of open data.

Our Open Data Strategy encompasses the entire spectrum, ensuring that, where appropriate, data is available for anyone to access, use, and share without constraint, while also protecting data that must remain closed. This framework will guide internal efforts to identify and prioritize data releases and help external users understand our data release processes and how they can participate.



### 3. Vision and Strategy

Our vision is that as much of our data as possible should be open. When we cannot make data open due to confidentiality or sensitivity, we will be transparent about the reasons. We will demonstrate leadership by providing transparent contextual information suitable for our data and supporting users in utilising the datasets we open. At Thames Water, we are committed to making data open.

**Vision:** To be a leader in the water sector by generating tangible value through the use and publication of open data. We aim to provide new opportunities for research, innovation, engagement, and greater efficiency.

**Mission:** To make a wide range of useful datasets available, along with contextual information to help others use and interpret our data easily. Our Open Data mission is to make available a wide range of useful datasets, along with contextual information to help others use and interpret our data as easily as possible. We will do this in a way that ensures sensitive data is always protected. In doing so, we aim to increase the discovery of innovative solutions to improve our performance and enable the creation of new products and services. This will, in turn, build trust in the water industry, improve the lives of our customers, and lead to positive outcomes for the environment.

#### Pledges:

- **Transparency:** We will be open about our data and the reasons for any restrictions.
- **Support:** We will provide the necessary contextual information and support to help users make the most of our data.
- **Collaboration:** We will work with other organisations to share best practices and drive innovation.
- **Protection:** We will ensure that sensitive data is always protected.

By embracing these commitments, we aim to foster a culture of openness and collaboration that will drive progress in the water sector and beyond. We believe that open data has the power to transform our operations, enhance customer trust, and contribute to a more sustainable and better environmental future.

## 4. Commitments

In support of our open data vision and aims, we make four key commitments:

- **Engaging and supporting our data community:** Ensuring our customers and communities can derive maximum value from our data is crucial. We will make sure that published data is easy to find, relevant, well-described, and documented, in appropriate formats with clear licences. We will establish feedback channels to engage with our network of data re-users, allowing them to provide input on what we publish and how we can improve.
- **Strengthening our data processes:** The open data landscape is constantly evolving. To balance security and risk with openness and opportunity, our processes must evolve as well. We will annually review our progress in open data maturity and update our supporting processes and documentation to advance up the maturity scale.
- **Leadership and collaboration:** We will continue to engage with and maintain openness with our partners in the water industry to make common datasets available. We are committed to using our experience and insights to benefit our customers, industry partners, and the broader community. By sharing best practices and collaborating, we aim to drive innovation and improvement across the sector.
- **Restoring trust through open data:** We will persist in making new datasets available and provide updates to our existing datasets. We will launch new initiatives to address challenges within our business, industry, and environment through innovative solutions. By doing so, we aim to build trust and demonstrate our dedication to transparency and continuous improvement.

Our commitment to open data includes identifying priority datasets for release, reviewing datasets that have only been shared with limited groups and taking steps, where appropriate, to make them openly available, providing proactive leadership to develop and publish a clear roadmap for open data, and releasing datasets with an open licence to encourage free use of information.

## 5. Supporting Our Customers, Stakeholders and Environment

Opening areas of our data has and will continue to bring us many benefits. It increases trust and transparency with our customers and regulators, allows the supply chain to understand the true structure and quality of operational data, provides academia with a rich dataset for research, and gives our customers and other interested parties the opportunity to discover more about what we do.

- **Increased trust and transparency:** By making data open, Thames Water can build greater trust with customers, regulators, and other stakeholders. Transparency in data sharing helps to demonstrate accountability and fosters a culture of openness.
- **Innovation and economic growth:** Open data can drive innovation by providing valuable insights that can be used to develop new products, services, and solutions. It can also stimulate economic growth by enabling businesses to create new opportunities based on the data.
- **Improved service delivery:** Access to open data allows for better decision-making and more efficient service delivery. It enables Thames Water to identify areas for improvement and optimise operations to better serve customers.
- **Collaboration and knowledge sharing:** Open data facilitates collaboration and knowledge sharing within the water industry and beyond. It allows for the exchange of best practices, lessons learned, and innovative solutions to common challenges.
- **Environmental and social benefits:** Open data can support environmental sustainability and social responsibility initiatives. By sharing data on water usage, quality, and conservation efforts, Thames Water can contribute to broader efforts to protect natural resources and promote sustainable practices.

## 6. Foundations of success

The foundations for the success of open data include ensuring data is findable with rich metadata, accessible via standard protocols, interoperable with shared formats, reusable with clear descriptions and licenses, ethically assessed and transparently shared, and openly available to promote inclusivity and innovation. Our foundations:

- **Findable:** Data should be easy to locate for both humans and computers. This requires rich metadata and registration in searchable resources to ensure discoverability.
- **Accessible:** Data should be retrievable using standard protocols. Even if the data itself is no longer available, its metadata should remain accessible to provide context and information.
- **Interoperable:** Data should be formatted using a formal, accessible, and shared language for knowledge representation. It should be linkable to data infrastructures in related sectors to facilitate integration and use across different systems.
- **Reusable:** Data should be well-described with accurate attributes, clear usage licences, and detailed provenance. This ensures that data can be effectively reused in various contexts and applications.
- **Ethical:** The collection, use, and sharing of data should be assessed for ethical impact to maintain accountability and public trust.
- **Open:** Data should be published according to the Open Data Institute (ODI) open data definition, making it accessible to anyone. This promotes inclusivity and broadens the potential for innovation and collaboration.

## 7. Strategic Pillars

- **Lead the Industry:** We are committed to leading the water industry towards a future of open data. By fostering collective learning and enhancing interoperability, we aim to address shared challenges effectively.
- **Make it Easy:** Our goal is to publish data in a user-friendly format, making it accessible to local stakeholders and citizen scientists. All our data will be available under open licences, ensuring it is free to use.
- **Outcome-Focused:** We prioritise improving the lives of our customers and the environment. Our efforts will address both local and national issues, ensuring meaningful and positive impacts.
- **Collaborate with Other Sectors:** We will actively work with other sectors, especially the energy sector, to achieve better cross-sector outcomes. This collaboration will support the transition to renewable energy sources.
- **Build an Ecosystem:** We aim to promote citizen science and develop valuable skills within our region. By strengthening partnerships and supporting data re-users, we will build a robust ecosystem.
- **Strengthen Our Capability:** We are dedicated to building the necessary people, processes, and technology capabilities within our organisation to support open data initiatives.

## 8. Our Open Data Road Map

### **An industry first**

In February 2023, Digital embarked on a ground-breaking initiative at Open Data Strategy, setting a new standard in the water utilities sector. We proudly released our Emergency Discharge Measures Map and API, providing an innovative tool for managing and responding to water discharge emergencies. This release marks a significant step forward in our commitment to leveraging data for better decision-making and enhanced public safety.

In AMP 8, we aim to:

- Ensure all our Marketplace datasets are open and meet industry standards.
- Maintain a regular channel of communication with our data community.
- Enhance our feedback mechanism for our open data publications.

### **Delivery Plan**

The delivery plan is grouped into three phases:

#### **Phase one: Setting the Foundation**

- Establish the necessary infrastructure and governance frameworks to support open data initiatives.
- Develop and implement data quality standards and processes to ensure the accuracy and reliability of published data.
- Engage with stakeholders to identify key datasets for publication and gather feedback on data needs and priorities.

#### **Phase two: First Steps**

- Begin publishing open data, starting with high-priority datasets identified in Phase One.
- Test platform design and functionality to ensure ease of access and usability for data users.
- Implement best practices for data management and security to protect sensitive information while maximising openness.

#### **Phase three: Business-as-Usual**

- Establish open data as a core business activity, integrating it into Thames Water's ongoing operations and strategic planning.
- Continuously monitor and evaluate the impact of open data initiatives, using feedback from stakeholders to make improvements.
- Expand the scope of open data publications, including additional datasets and more detailed information as appropriate.

## 9. Open Data Strategy - Summary

The summary outlines the purpose and guiding principles of Thames Water's open data strategy. It emphasises the importance of better data driving better performance and accountability. The strategy aims to make data open to drive innovation, progress transparency, improve outcomes for key stakeholders and increases efficiency. It includes a delivery plan with phases for setting the foundation, publishing open data, and establishing open data as a business-as-usual activity.

## 10. Conclusion

Our Open Data Strategy is all about being transparent, innovative, and collaborative. By sharing our data, we aim to improve performance, spark innovation, and enhance services for our customers and communities. We will lead the industry, work with other sectors, and build a strong ecosystem to make the most of our data. We believe open data can transform our operations, build customer trust, and contribute to a better, more sustainable environment.